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# HUMANE SLAUGHTER

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Agricultural Research Service  
U. S. DEPARTMENT OF AGRICULTURE

# **HUMANE SLAUGHTER**

## **A 1962 Progress Report**

At the end of December and 29 months of operation under the National Humane Slaughter Law, about 250 million food animals had been slaughtered in packing plants using humane methods.

Under the law, meat packers who wish to sell products to agencies of the Federal Government must use methods of slaughter declared as humane by the Secretary of Agriculture. Actually, hundreds of slaughtering establishments, representing a vast portion of the industry and capable of meeting the needs of Federal agencies many times over, have installed humane slaughtering equipment.

Of the 562 establishments reporting slaughter under Federal meat inspection, 518 were employing the humane methods at the end of 1962. Latest figures for a single month's operations in the federally inspected segment of the industry showed that of approximately 10 million animals slaughtered, over 9 million were killed in plants using humane methods.

In addition, many non-federally inspected establishments slaughtering thousands of animals installed humane slaughtering equipment during the year. Many did so to conform to State humane slaughter laws patterned after the national law. Others recognized that humane slaughter of livestock represents an ever-growing trend in the meat industry, reflecting the wishes of the public.

When the law was first passed in August 1958, it was estimated that less than 5 percent of the federally inspected establishments were using the methods later approved under the law. By November 1959, the number of plants that had installed humane slaughter equipment had grown to 120. As the deadline for industry compliance drew to a close in July 1960, more than two-thirds of the federally inspected plants were using one or more of the approved humane methods.



## HUMANE SLAUGHTER RESEARCH

Since shortly after passage of the Humane Slaughter Law in 1958, long-range, basic research has been underway on the handling, restraining, and dispatching of food animals. Also, numerous tests have been conducted with existing and proposed humane slaughter equipment. This research and testing is carried out by the United States Department of Agriculture in cooperation with Cornell University, Ithaca, N.Y., and the University of Minnesota, St. Paul Minn.

At the University of Minnesota, scientists have as their research goal the establishment of criteria for measuring pain and insensibility in livestock. This work has resulted in the development of new techniques for measuring the presence or absence of pain in animals during electrical stunning.

At Cornell University, research workers are studying the effectiveness of various mixtures of air and CO<sub>2</sub> used in the carbon dioxide method of livestock stunning. Tests indicate certain humane and economic benefits from increasing the amount of oxygen used in the mixture. The validity of these advantages, which are associated with animal comfort and meat quality, are being tested on a practical basis.

At USDA's Agricultural Research Center, Beltsville, Md., research facilities are available for testing newly developed and modified humane stunning equipment, and equipment for humanely restraining livestock prior to slaughter. Studies also are being made of reactions of animals to determine the effects of stunning and to evaluate differences in results that are related to age, breeding, and species of the test animals.

## THE HUMANE SLAUGHTER LAW

The Humane Slaughter Law, passed by the 85th Congress as Public Law 85-765, was signed by the President August 27, 1958. The purpose of this law was to establish the use of humane methods in the slaughter of livestock. Under the law, the Secretary of Agriculture was required to designate, by March 1, 1959, those methods of slaughter which were con-

sidered humane, and packers who wish to sell products to the Federal Government had until August 31, 1960, to put those methods into effect.

## THE PURPOSE OF THE HUMANE SLAUGHTER LAW

Purpose of the law as stated by the Congress:

- Prevent needless suffering of animals at the time of slaughter;
- Provide safer and better working conditions for persons engaged in the slaughtering industry;
- Bring about improvement of products and economies in slaughtering operations;
- Effect other producer, processor, and consumer benefits which tend to expedite an orderly flow of livestock and livestock products in interstate and foreign commerce.

## METHODS OF SLAUGHTER DECLARED HUMANE

The three methods are: *Chemical*, the use of carbon dioxide gas for sheep, calves, and swine; *mechanical*, the use of captive bolt stunners or firearms on sheep, swine, goats, calves, cattle, horses, and mules, and *electrical*, the stunning of swine, sheep, calves, goats, and cattle with electric current.

Designated methods require that the carbon dioxide gas or electric current be administered so as to produce surgical anesthesia in the animals quickly and calmly, and that the captive bolt stunners and firearms produce immediate and complete unconsciousness with minimum of excitement and discomfort.

The animals must also be driven to slaughter areas with a minimum of excitement and discomfort. Areas through which the animals are driven must be free from hazards that might accidentally produce pain.



## IDENTIFICATION OF HUMANELY SLAUGHTERED CARCASSES

The Washington, D. C., office of USDA's Meat Inspection Division serves as a national clearing house for the identification of carcasses from humanely slaughtered food animals and the establishments in which slaughtering took place. This involves the continuous gathering of information from thousands of Federal inspectors in the field, as well as publishing the information at least once a month in the Federal Register. This published listing includes the species of animals slaughtered humanely in each Federally inspected establishment, along with the name and the official number designated for the establishment by the Meat Inspection Division. The official establishment number also appears on each carcass as part of the Federal Meat Inspection Stamp. A carcass is considered identified as humanely slaughtered when the official establishment number appearing on the carcass also appears in the Federal Register list; and when the carcass corresponds with the animal species listed as being humanely slaughtered by the establishment concerned.

## THE HUMANE SLAUGHTER ADVISORY COMMITTEE AND ITS DUTIES

Under provisions of the Humane Slaughter Law, the Secretary of Agriculture was authorized to establish an advisory committee to consult with the Secretary and other appropriate officials of the Department of Agriculture and to make recommendations relative to (a) research designed to determine methods of slaughter, and handling in connection with slaughter, which are humane; (b) obtaining the cooperation of the public, producers, farm organizations, industry groups, humane associations, and Federal and State agencies in the furtherance of such research and the adoption of approved methods; and (c) final designation of humane methods of slaughter.



## MEMBERS OF THE COMMITTEE

Members chosen to serve on the advisory committee and the groups they represent are: National organizations of slaughterers, T. H. Broecker, Louisville, Ky., and Donald S. MacKenzie, Chicago, Ill.; trade union movement, Russell E. Dresser, Chicago; general public, Miss Sally Butler, Washington, D. C.; livestock growers, Don C. Collins, Kit Carson, Colo., and E. Howard Hill, Des Moines, Iowa; poultry industry, John Hargreaves, Federalburg, Md.; humane organizations, Rutherford T. Phillips, Denver, Colo., and John C. MacFarlane, Boston, Mass.; national veterinary medical organization, Dr. James R. Hay, Chicago; person familiar with the requirements of religious faiths, Rabbi Joseph B. Soloveitchik, Roxbury, Mass. Dr. C. Donald Van Houweling, USDA, Ames, Iowa, is chairman of the committee.

Prepared by

Meat Inspection Division

Agricultural Research Service

U. S. DEPARTMENT OF AGRICULTURE

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